



# Aviation Education News



Distributed Quarterly to Promote Aviation Education and Awareness in Virginia

May 2000

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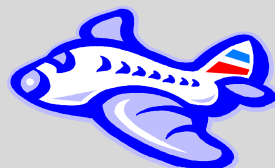
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**Results of the 2000 VAOC  
Scholarship Award Program will  
appear in the August issue of the  
VASEF Newsletter.**

## **2000 Virginia Aviation Art Contest Winners Depict "Flight Into the Future"**

The future of aviation includes space planes, hot air balloons, sailplanes and much more as depicted by the winners of the 2000 Virginia Aviation Art Contest.

Young people from across the Commonwealth entered their original art into this year's contest with almost 200 total entries being received by the Virginia Department of Aviation.

American Society of Aviation Artists (ASAA) members Luther Gore, Bill Kluge, and Christopher Jones (see below) judged the competition.

First, second, and third place winners in each of three categories were then sent to Washington, D. C. for United States national judging.

Virginia did not have any national winners this year but, as you'll see inside, these students' artwork was first class!



*From left, Christopher Jones, Bill Kluge, and Luther Gore  
judge Virginia's art contest entries.*

### **International Aviation Art Contest**

The International Aviation Art Contest is sponsored by the National Aeronautic Association, National Association of State Aviation Officials, National Aeronautics and Space Administration, and Federal Aviation Administration, in cooperation with the Federation Aeronautique Internationale (FAI), to motivate and encourage young people of FAI-member nations to become more familiar with and participate in aeronautics, engineering and science.

## PRESIDENT'S NOTES

The NASA Langley Research Center's Office of Education (OEd) is working in collaboration with the Virginia Department of Aviation which is an excellent way to maintain two-way communication between federal and state aviation education concerns.

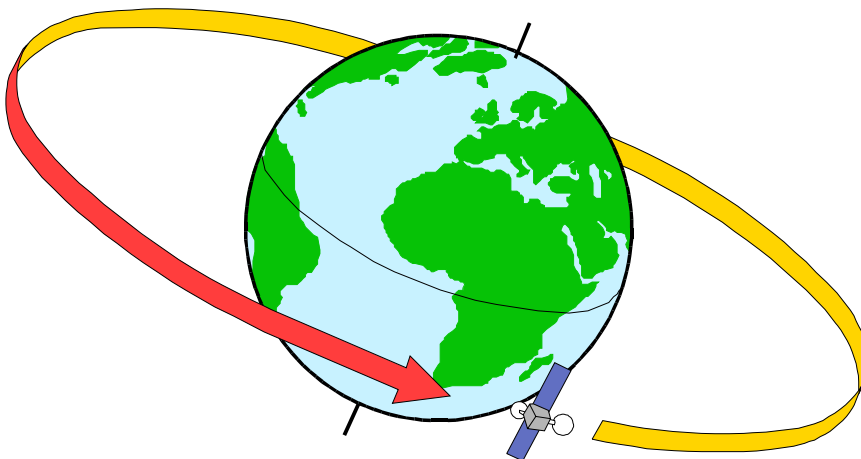
We are trying to help folks become more literate on the use and benefits of the Internet. Along these lines I suggest that you access the following sites for some great ideas:

NASA Langley, Office of Education <http://edu.larc.nasa.gov/>

Spaceday, May 4, 2000 <http://edu.larc.nasa.gov/spaceday2000/>

Regimes of Flight, NASA Ames Research Center <http://quest.arc.nasa.gov/aero/events/regimes>

Peter D. Thomas  
(Old Dominion University Research Foundation)  
Office of Education  
NASA Langley Research Center



**VASEF AVIATION EDUCATION NEWS** is published quarterly in support of aviation education in the Commonwealth of Virginia by the Virginia Department of Aviation.

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VASEF NEWS Editor: Betty Wilson

Please send story ideas, photographs, calendar events, and other items for possible inclusion to:

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<http://www.doav.state.va.us> (Internet)



### VASEF PURPOSE

The Forum is a non-profit organization to promote and foster aviation and space education among public and private schools, colleges and universities, and community and civic groups, and to promote increased public understanding of aviation and space and their economic, social, and career values in our society and in the Commonwealth of Virginia.



**First Place:** Grace Oxley  
Gordonsville, Virginia



**Second Place:** Ashley Scott  
Sterling, Virginia



**Third Place:** Kevin Welch  
Sterling, Virginia

## 2000 Art Contest Winners - Category I - Ages 6-9

### About the International Aviation Art Contest....

The International Aviation Art Contest is sponsored by the National Aeronautic Association, National Association of State Aviation Officials, National Aeronautics and Space Administration, and Federal Aviation Administration, in cooperation with the Federation Aeronautique Internationale (FAI), to motivate and encourage young people of FAI-member nations to become more familiar with and participate in aeronautics, engineering, and science.

In the United States, each state is responsible for holding its own individual contest. Most of these contests are run by the state's aviation agency. In Virginia, the Virginia Department of Aviation is responsible for the contest. This year, there were approximately 200 entries in Virginia.

Entries in the contest are judged by categories which are determined by age. Category I is for ages 6 to 9; Category II, ages 10-13; and Category III, ages 14-17.

An aviation-related theme is selected by an international committee each year in May. In the United States, a pamphlet with the theme and additional information about the 2001 contest will be sent to schools at the beginning of the 2000/01 school year.

In order to adhere to the international standard, artwork size should be 11 x 17. Artwork must not be framed, laminated, mounted, or outlined with borders.

Watercolor, acrylic or oil paints, indelible markers, colored pencils, felt-tip pens, soft ball-point pens, indelible ink, Crayola or similar indelible mediums are allowed.

Pencil, charcoal, or other non-permanent medium, computer generated, or collage work involving the use of photocopies are not permitted.

Virginia's winners for the year 2000 may also be seen on the Department of Aviation's website at: <http://www.doav.state.va.us/2000art.htm>.

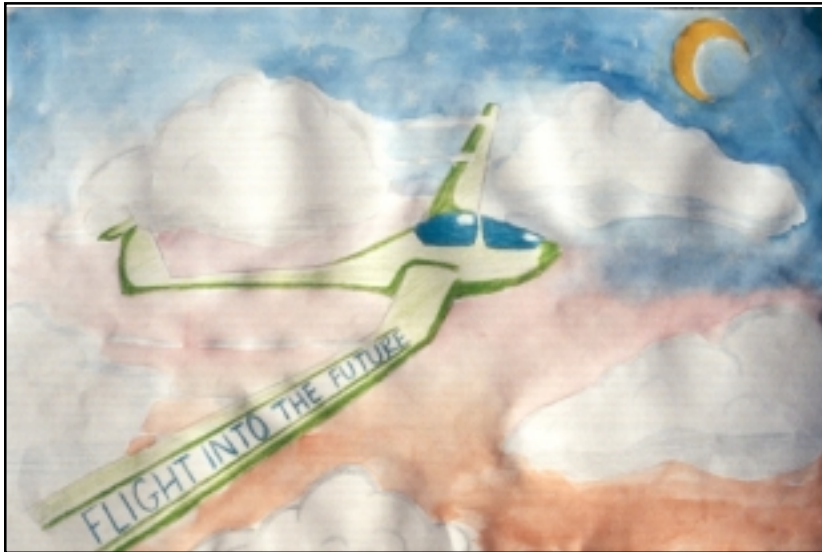
United States national winners may be viewed by visiting NASAO's web site: <http://www.nasao.org/news/Default.htm> and selecting 2000 International Aviation Art Contest winners.





**First Place:**

**Danielle Nichols  
Vienna, Virginia**



**Second Place:**

**Erica Yu  
Alexandria, Virginia**



**Third Place:**

**Leila Prasertwaitaya  
Falls Church, Virginia**

## 2000 Art Contest Winners - Category II - Ages 10-13

### National Air and Space Museum Calendar

Thursday, May 18, 2000

#### 2000 Charles A. Lindbergh Memorial Lecture

**"Transonic Flight Testing: The Struggle to Break the Sound Barrier"**

**Captain Eric Brown**

At this special evening lecture, Captain Eric Brown discusses developments in the worldwide effort to break the sound barrier. Captain Brown has a 31-year career in the Royal Navy and is the Fleet Air Arm's most decorated pilot. As Chief Naval Test Pilot commanding the Enemy Aircraft Flight, he was responsible for flight testing and evaluating enemy aircraft. He holds several world records, including the most different types of aircraft flown - 487; the most arrested landing on aircraft carriers - 2407; and the most catapult launchings - 2721. His flight testing and evaluations led to design innovations on aircraft carriers and the accelerated introduction of jet aircraft in allied forces.

Wednesday, May 24, 2000

#### Exploring Earth's Moon

**"Lunar Samples and the Story of the Moon"**

**Graham Ryder**

Lunar samples are the dominant keys to understanding the Moon's character, evolution, and origin. Samples collected on the Apollo and unmanned Soviet Luna missions provide information on geologic processes, ages of geologic events, and the nature of the lunar interior. Graham Ryder, staff scientist at the Lunar and Planetary Institute in Houston, Texas will discuss what the carefully preserved and protected lunar samples still teach us about the Moon.

Wednesday, June 14, 2000

#### Exploring Earth's Moon

**"Back to the Moon: The Lunar Prospector Mission"**

**Alan Binder**

After gathering global mapping data for nearly 19 months, Lunar Prospector ended its mission in July, 1999 with a controlled crash into a lunar crater. The unmanned spacecraft performed this dramatic maneuver on a quest to confirm the existence of water ice on the Moon. Alan Binder, Principal Investigator for Lunar Prospector, offers a firsthand account of the mission: its goals and results and what its findings mean for the future.

**R.G. Smith: The "Old Master" of the Sky  
Museum Art Exhibition: March 24, 2000 -  
September 4, 2000**

#### **Paul E. Garber Preservation, Restoration, and Storage Facility**

Get a behind-the-scenes look at the restoration workshop in Suitland, Maryland, where skilled craftsmen restore aircraft, satellites, and flight-related artifacts. Free tours last approximately three hours. 10:00 a.m., Monday through Friday; 10:00 a.m. and 1:00 p.m. Saturday and Sunday. For reservations, call (202) 357-1400 (voice) or (202) 357-1505 (TTY).

**For general information call (202) 357-2700 (voice) or (202) 357-1729 (TTY).**





**First Place:** Julia Planes  
Springfield, Virginia

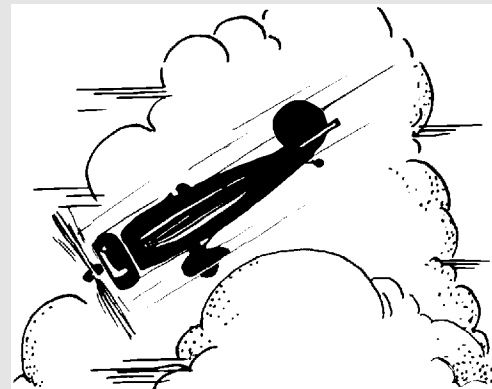


**Second Place:** Kristinee Algire  
Alexandria, Virginia



**Third Place:** Matt Hanson  
Vienna, Virginia

## 2000 Art Contest Winners - Category III - Ages 14-17



### VIRGINIA AVIATION MUSEUM CALENDAR

**May 2, 2000 - 7-10 p.m.**

#### Virginia Aviation Safety Week Seminar

Speaker Mark Grady will present a program entitled "Flying Friendly" as a part of Aviation Safety Week.

**May 18, 2000 - 7 p.m.**

#### Guest Speakers Series

Tom Culbert and Andy Dawson, authors of *Pan Africa - Across the Sahara in 1941 with Pan Am* will conduct a book signing and lecture on the operations of Pan Am in Africa..

**May 20, 2000**

#### VAHS Annual Meeting

Reception and buffet. For reservations or additional information, please call (804) 222-8690 and leave a detailed message.

**June 15, 2000 - 7 p.m.**

#### Guest Speakers Series

Bob Pandis of Northrop Grumman will present "Revolution in Military Capability," a multimedia presentation on the B-2 Stealth bomber. Discussion topics include aircraft specifications, performance, and weaponry as well as the B-2's stealth ability.

**June 17-18, 2000 - 10 a.m. - 4 p.m.**

#### Flight Days

A fun-filled weekend with static aircraft and remote-control displays, air pressure demonstrations, Carpenter Science Theater productions and fun activities for the whole family.

Guest Speakers Series Programs begin at 7:00 p.m. in the Benn Theater. Please call (804) 236-3622 to confirm date and time.

The Virginia Aviation Museum is open daily from 9:30 a.m. to 5:00 p.m. Admission is \$5.00 for adults, \$4.00 for seniors and \$3.00 for youth. It is located at Richmond International Airport, 5701 Huntsman Road, Richmond International Airport, Virginia 23250. For further information on events and schedules, call (804) 236-3622.

Aviation Education Corner	<div>Steps</div> <div>1. State the problem.</div> <div>2. Form a hypothesis.</div> <div>3. Design an experiment.</div>	<div>Data</div> <div>When air changes from being still and becoming a flowing current, does the air pressure change? or Does flowing air cause a change in air pressure?</div> <div>I think the ping-pong balls will move farther apart because the moving air will exert more pressure between them and push them away from each other. or I think the ping-pong balls will move closer together because flowing air has less pressure than still air, so the balls will move into that low pressure area.</div> <div>Materials: 2 ping-pong balls, a ring stand or tabletop, thread, straw, tape, ruler</div> <div>Procedure: 1. Gather materials. 2. Cut 2 pieces of thread at identical lengths.</div>
<p><b>Experiment: Faster Air =Lower Air Pressure 2</b></p> <p><b>Materials</b> two ping-pong balls tape thread soda straw hanging apparatus (table, overhang on a counter) ruler</p> <p><b>Experiment Set Up</b> Cut two pieces of thread about 25 centimeters long each.</p> <p>Tape one end of the thread to a ping-pong ball and attach the other end of the thread to the hanging apparatus.</p> <p>Repeat this with the other ping-pong ball, one to two centimeters away from the first ping-pong ball.</p> <p><b>Experiment Procedure</b> Hold the end of the straw about five centimeters away and perpendicular to the space between the ping-pong balls.</p> <p>Without making contact with the ping-pong balls, blow steadily through the straw.</p> <p>Observe and record.</p>	<p>3. Tape one end of the thread to a ball and the other to the stand so that it hangs freely.</p> <p>4. Repeat step 3, but hang the ball so that it hangs freely not more than 2 centimeters apart from the other ball at the same distance.</p> <p>5. Take the straw and without touching the balls, blow a steady stream of air in between them.</p> <p>6. Observe and record.</p> <p><b>4. Perform the Experiment.</b></p> <p>As I blew air through the straw and in between the ping pong balls, they moved (leaned) closer together. At one point, they touched.</p> <p><b>5. Organize and Analyze Data.</b> (make a chart, graph, or diagram.)</p> <p><b>6. Draw Conclusions.</b></p> <p>My results mean that moving air exerts less pressure than still air. So, still air has greater pressure and pushes more or exerts more pressure against the ping pong balls. The lower air pressure</p>	<p>between the balls might have pulled the balls closer together too.</p> <div data-bbox="865 1224 1484 1644"> <p>The diagram consists of two parts labeled 'before' and 'after'. In the 'before' part, two circles representing ping-pong balls are suspended by vertical lines (threads) from above. A vertical straw is positioned between them. In the 'after' part, the balls have moved closer together and are now touching. The threads are angled inward toward the point where the balls meet. Arrows point from the straw toward the balls, indicating the direction of the air flow.</p> </div> <p>(from AERONAUTICS: An Educators Guide with Activities in Science, Mathematics, and Technology Education (NASA))</p>

## SVCC Aviation Education Teachers Workshop

The Annual Southwest Virginia Community College Aerospace Education Teacher's Workshop is scheduled for July 24-28, 2000.

Hands-on activities in aviation and space topics are a highlight of this annual event.

Presenters from NASA, the Virginia Department of Aviation, and other organizations are scheduled.

For more information, call SVCC at 1-800-822-7822.

## 2000 National Congress on Aviation and Space Education

The National Congress on Aviation and Space Education was held in San Diego, California, March 15-18.

Highlights included speaker, Homer H. Hickam, Jr. who wrote the popular book "Rocket Boys" (which later became the film "October Sky").

NASA Astronaut Douglas Wheelock, who will fly on a future mission to the International Space Station spoke about his training in Russia.



Teacher Dianne Martin (above), from Mobile Alabama, was selected as the Scott Crossfield Teacher of the Year and also became a member of the prestigious Crown Circle.

### Aviation & Space



### Web Sites

Civil Air Patrol National Headquarters	<a href="http://www.capnhq.gov">www.capnhq.gov</a>
Federation Aeronautique Internationale	<a href="http://www.fai.org">www.fai.org</a>
Federal Aviation Administration	<a href="http://www.faa.gov/education.htm">www.faa.gov/education.htm</a>
National Aeronautic Association	<a href="http://naa.ycg.org/">naa.ycg.org/</a>
National Aeronautics and Space Administration	<a href="http://www.nasa.gov/">www.nasa.gov/</a>
National Association of State Aviation Officials	<a href="http://www.nasao.org">www.nasao.org</a>

## SCIENCE MUSEUM OF VIRGINIA CALENDAR

### IMAX FILMS:

Dolphins - May 1-Sept. 15  
Special Effects - May 1- July 31

### PLANETARIUM SHOWS

ZOOM on the MOON - April 15-Sept. 4

### CLASSES

"Stargazing 101" - May 2-30.

### SPECIAL EVENTS

Root for your favorite sun-powered entry in the "Junior Solar Spring" - May 6

### LIVESKY: Informal "live" planetarium

presentation of the month's celestial events. Third Friday of every month.

SKYWATCH: Third Friday of every month (weather permitting) on the front lawn.

24-Hour Information: (804) 367-0000

Box Office: (804) 367-1080

24-Hour Skywatch Information: (804) 367-8277

24-Hour TDD Information: (804) 367-9760

General Information - TDD: (804) 367-6552

Group Scheduling: (804) 367-6552

Home Page: <http://www.smv.mus.va.us>

## VIRGINIA AIR AND SPACE CENTER CALENDAR

### VISITING EXHIBITS:

THE ATOMS FAMILY thru May 7

TURBULENT LANDSCAPES May 27 thru September 4, 2000

### SIGMA SERIES LECTURES

**Tuesday, May 2, 2000**

"Magnet Science and Technology: From Quantum Wells to Floating Frog"  
Dr. Jack Crow

**Tuesday, June 6, 2000**

"Future of Computers"  
Dr. Horst Simon

### IMAX FILMS:

AMAZING JOURNEYS thru Sept. 7

MICHAEL JORDAN TO THE MAX thru Sept. 7

Call (804) 727-0900 for showtimes

Visit the Center's Home Page:

<http://www.vasc.org>

Visit the Teacher Resource Center Home Page:

<http://seastar.vasc.mus.va.us>



## Calendar of Events

**May 6, 2000 The Sky is the Limit Day** at Orange County Airport from 10 a.m. -4:00 p.m. Features a variety of activities to interest young people in aviation. For more information contact Faith Ballard at (540) 672-1005 or [f.ballard@mailcity.com](mailto:f.ballard@mailcity.com).

**May 20-21, 2000 EAA Annual Spring Fly-In** sponsored by EAA Chapter 186 will be held at the Winchester Regional Airport. For more information contact Tangy Mooney at (703) 780-6329 or [EAA186@netscape.net](mailto:EAA186@netscape.net).

**May 27, 2000 Tazewell County Airport Fly-In** will take place from 8 a.m. - 5:00 p.m. For more information contact Buford Cordle at (540) 963-4509 or [Mgr6V3@netscope.net](mailto:Mgr6V3@netscope.net).

**June 3, 2000 Dulles Day and Plane Pull.** For more information contact Mr. Mark Anderson at (703) 417-8530.

**June 10-11, 2000 4th Annual Virginia State EAA Fly-In** at Dinwiddie County Airport (Petersburg). Gates open 8 a.m. -5 p.m. on Saturday and Sunday. Airshow 1-3 p.m. each day.

**For more events check out:**

<http://www.doav.state.va.us/calendar.htm>.

## Aviation Education Supporters:

VASEF projects are funded by our membership fees and by donations from our member organizations. We would appreciate your support through membership in our organization.

\_\_\_\_\_ Regular Membership \$25.00 annually (July - Dec. \$12.50)

\_\_\_\_\_ Non-Profit Organization \$25.00 annually (July - Dec. \$12.50)

\_\_\_\_\_ Corporate Membership \$100.00 annually (July - Dec. \$50.00)

\_\_\_\_\_ New Member \_\_\_\_\_ Renewal

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Name of Organization: \_\_\_\_\_

Occupation: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_

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Richmond, Virginia 23250-2422



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5702 Gulfstream Road  
Richmond, Virginia 23250-2422



*Inside:*

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